Contribution ID : **38** Type : **Plenary/section talk**

TEST OF NUCLEAR FRAGMENTATION MODELS WITH CARBON FRAGMENTATION AT 0.3 GeV/n

Friday, 14 October 2016 14:15 (20)

Carbon fragmentation at 0.3 GeV per nucleon on Be, Al, Cu and Ta targets has been studied in the FRAGM experiment at ITEP TWA heavy ion accelerator. Momentum spectra of all long lived nuclear fragments from hydrogen isotopes to isotopes of the projectile carbon nuclei were measured with the beamline spectrometer placed at an angle of 3.5 degrees to the beam direction. The fragment momentum spectra span the regions of the fragmentation peaks as well as the cumulative region. The differential cross sections cover up to five orders of magnitude. The obtained data were used for high precision test of a target independence of fragmentation processes in fragmentation peak regions predicted by statistical models. The data were also compared with predictions of few Monte Carlo models of ion-ion interactions: Binary Cascade, INCL++, LAQGSM and QMD. Successes and drawbacks of above mentioned models are discussed.

Primary author(s) : Dr. KULIKOV, Viacheslav (SSC RF ITEP of NRC Kurchatov Institute)

Presenter(s) : Dr. KULIKOV, Viacheslav (SSC RF ITEP of NRC Kurchatov Institute)

Session Classification : Nuclear physics and particle physics - parallel IX

Track Classification : Nuclear physics and particle physics